

**REMARKS**

Reconsideration and allowance of the above-reference application are respectfully requested.

**I. STATUS OF THE CLAIMS**

Claims 1 and 15 are amended herein.

In view of the above, it is respectfully submitted that claims 1-3, 15, 63 and 64 are currently pending and under consideration.

**II. DRAWING OBJECTION**

On page 2 of the Office Action, the Examiner indicates that the drawings are "objected to." Claim 15 is amended herein. Therefore, the drawing objection should be resolved.

Reconsideration and withdrawal of the objection to the drawing are respectfully requested.

**III. CLAIM OBJECTIONS**

On page 3 of the Office Action, the Examiner indicates that claims 1-3, 15, 63, and 64 are "objected to." Claims 1 and 15 are amended herein to overcome the claim objections.

In view of the above, it is respectfully submitted that the objections are overcome.

**IV. REJECTION OF CLAIM 15 UNDER 35 U.S.C. §112, FIRST PARAGRAPH**

Claim 15 is amended herein to overcome the 35 U.S.C. § 112, first paragraph rejection.

In view of the above, it is respectfully submitted that the rejection is overcome.

**V. REJECTION OF CLAIMS 1-3, 15, 63 AND 64 UNDER 35 U.S.C. § 103(a) AS BEING UNPATENTABLE OVER CHRAPLYVY ET AL. (USP 5,559,920) IN VIEW OF DELAVAUX ET AL. (USP 5,608,562) AND KOSAKA ET AL. (USP 6,195,480)**

A first wording of claim 1 (as amended herein) of the present invention recites, "an optical fiber having a specific one of the optical fiber types being applied to at least one of said plurality of segments". That is, an optical fiber having a specific one of the optical fiber types must always be used in at least one of a plurality of segments, not that an optical fiber having a specific one of the optical fiber types may be used in at least one of a plurality of segments.

A second wording of claim 1 recites, "determining where said specific one of the optical fiber

types exists in the optical transmission line," and a third wording recites, "providing a dispersion compensator responsive to said determination, in each of said optical transmitter, said optical receiver, and said optical amplifier according to whether an optical fiber type of an optical fiber transmission line segment immediately downstream of said optical transmitter is said specific one of the optical fiber types or not and a dispersion value of the optical fiber transmission line segment immediately downstream of said optical transmitter, according to whether an optical fiber type of an optical fiber transmission line segment immediately upstream of said optical receiver is said specific one of the optical fiber types or not and a dispersion value of the optical fiber transmission line segment immediately upstream of said optical receiver, and according to whether an optical fiber type of an optical fiber transmission line segment immediately upstream of said optical amplifier is said specific one of the optical fiber types or not and dispersion values of optical fiber transmission line segments immediately upstream and downstream of said optical amplifier". According to the second and third wording of claim 1, for example, a dispersion compensator can be omitted in said optical transmitter, said optical receiver, or said optical amplifier because of the first wording of claim 1.

Thus, the method as recited in claim 1 omits a dispersion compensator in said optical transmitter, said optical receiver, or said optical amplifier by always using the specific fiber type in at least one of a plurality of segments.

Chraplyvy teaches that "a complete system may include further spans which are not dispersion-averaged-which are dispersion-equalized, or even dispersion-shifted" (see column 7, lines 9-17). However Chraplyvy fails to disclose that a complete system always includes a dispersion-shifted fiber. Thus, Chraplyvy fails to teach the first wordings of claim 1, that is, "an optical fiber having a specific one of the optical fiber types being applied to at least one of said plurality of segments". Chraplyvy also fails to teach the second and third wordings of claim 1 and thus, cannot always omit a dispersion compensator in optical transmitter, optical receiver, or optical amplifier. It is submitted that Chraplyvy does not teach or suggest the features recited in claim 1 of the present invention.

Delavaux teaches that "the dispersion compensation unit is adjustable so that it introduces a variable amount of dispersion thus making it useful with fibers of different lengths or with fibers having different dispersion properties" (see column 2, lines 10-13). However, Delavaux fails to teach a specific fiber type as recited in claim 1. Delavaux fails to teach the first wordings of claim 1, that is, "an optical fiber having a specific one of the optical fiber types being applied to at least one of said plurality of segments". Delavaux also fails to teach the second and third wordings of claim 1 and thus, cannot always omit a dispersion compensator in optical transmitter, optical receiver, or

optical amplifier. It is submitted that Delavaux does not teach or suggest the features recited in claim 1 of the present invention.

Kosaka teaches that "the dispersion compensator 51 may be omitted when dispersion characteristics of the transmission paths exerts no influence on transmission characteristic of the whole system" (see column 9, lines 47-52). However, Kosaka fails to teach a specific fiber type as recited in claim 1. That is, Kosaka does not teach omitting a dispersion compensator by using an optical fiber having the specific fiber type.

Kosaka fails to teach the first wordings of claim 1, that is, "an optical fiber having a specific one of the optical fiber types being applied to at least one of said plurality of segments". Kosaka also fails to teach the second and third wordings of claim 1 and thus, cannot always omit a dispersion compensator in optical transmitter, optical receiver, or optical amplifier. It is submitted that Kosaka does not teach or suggest the features recited in claim 1 of the present invention.

According to the above, Charaplyvy, Delavaux, and Kosaka, either alone or in combination, do not teach or suggest the features recited in claim 1.

Claim 15 (as amended herein) recite similar features as recited in claim 1. That is, for example, the system in claim 15 can omit a dispersion compensator in optical transmitter, optical receiver, or optical amplifier by providing an optical fiber having the specific fiber type in at least one of a plurality of segments. It is submitted that Charaplyvy, Delavaux, and Kosaka, either alone or in combination, do not teach or suggest the features recited in claim 15.

Claims 2, 3, 63, and 64 depend from claim 1 and distinguish over the cited prior art for at least the same reasons that claim 1 distinguishes over the cited prior art.

In view of the above, it is respectfully submitted that the rejection is overcome.

## VI. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,  
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Date: 3-10-05

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